Knowing the how-to's of malaria prevention

What is malaria?

Malaria is a serious, sometimes fatal, disease caused by a parasite. There are four kinds of malaria that can infect humans: Plasmodium falciparum, P. vivax, P. ovale, and P. malariae.

Where does malaria occur?

Malaria occurs in over 100 countries and territories. More than 40% of the people in the world are at risk. Large areas of Central and South America, Hispaniola (Haiti and the Dominican Republic), Africa, the Indian subcontinent, Southeast Asia, the Middle East, and Oceania are considered malaria-risk areas (an area of the world that has malaria).

How common is malaria?

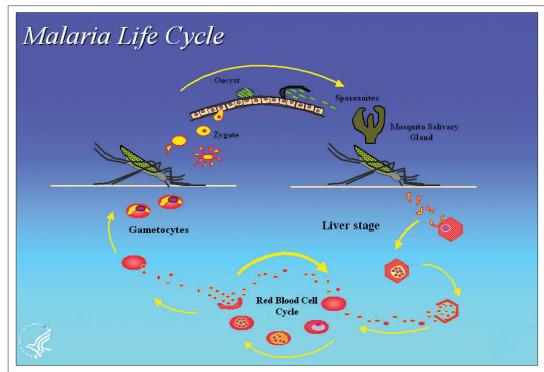
The World Health Organization estimates that yearly 300-500 million cases of malaria occur and more than 1 million people die of malaria. About 1,200 cases of malaria are diagnosed in the United States each year. Most cases in the United States are in immigrants and travelers returning from malaria-risk areas, mostly from sub-Saharan Africa and the Indian subcontinent.

What are the signs and symptoms of malaria?

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhea may also occur. Malaria may cause anemia and jaundice (yellow coloring of the skin and eyes) because of the loss of red blood cells. Infection with one type of malaria, Plasmodium falciparum, if not promptly treated, may cause kidney failure, seizures, mental confusion, coma, and death.

How soon will a person feel sick after being bitten by an infected mosquito?

For most people, symptoms begin 10 days to 4 weeks after infection, although a person may feel ill as early as 8 days or up to 1 year later. Two kinds of malaria, P. vivax and P. ovale, can relapse; some parasites can rest in the liver for several months up to 4 years after a person is bitten by an infected mosquito. When these parasites come out of hibernation and begin invading red blood cells, the person will become sick.



Humans get malaria from the bite of a malaria-infected mosquito. When a mosquito bites an infected person, it ingests microscopic malaria parasites found in the person's blood. If, after a week, the mosquito then bites another person, the parasites go from the mosquito's mouth into the person's blood. The parasites then travel to the person's liver, enter the liver's cells, grow and multiply. The parasites leave the liver and enter red blood cells. Once inside the red blood cells, the parasites grow and multiply. The red blood cells burst, freeing the parasites to attack other red blood cells.

Source: Center for Disease Control and Prevention

How is malaria diagnosed?

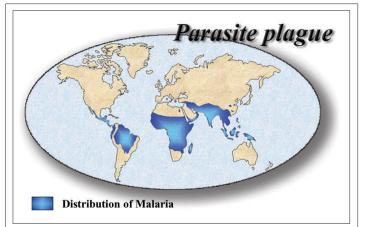
Malaria is diagnosed by looking for the parasites in a drop of blood. Blood will be put onto a microscope slide and stained so that the parasites will be visible under a microscope. Anyone who becomes ill with a fever or flu-like illness while traveling in a malaria-risk area and up to one year after returning home should immediately seek professional medical care. Tell your health care provider if you've been deployed in a malaria-risk area.

Who is at risk for malaria?

Persons living in, and deployed to, any area of the world where malaria is transmitted may become infected.

What is the treatment for malaria?

Malaria can be cured with prescription drugs. The type of drugs and length of treatment depend on which kind of malaria is diagnosed, where the patient was infected, the age of the patient, and how severely ill the patient was at start of treatment.



It is estimated that malaria kills one million people every year. Most deaths occur in young children. Every 30 seconds a child dies in Africa, killed by malaria. Because malaria causes so many deaths and makes so many people sick, the disease is a great drain on a country's economy. Many countries with malaria are already among the poorer nations. Thus, malaria maintains a vicious circle of disease and poverty.

Source: Center for Disease Control and Prevention

How can malaria be prevented?

- Take your antimalarial drug exactly on schedule without missing doses.
- Prevent mosquito and other insect bites. Use DEET insect repellent on exposed skin.
- Wear long pants and long-

sleeved shirts, especially from dusk to dawn.

• Sleep under a mosquito bednet that has been dipped in permethrin insecticide.

Source: Center for Disease Control and Prevention